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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,045	07/11/2003	Ryoji Habuchi	240060US3	3061
22850	7590	05/24/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,045

Applicant(s)

HABUCHI ET AL.

Examiner

Roger L Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 6 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following action is in response to the amendment filed for application 10/617,045 on April 7, 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Morishige. With regard to claim 1, Morishige teaches a driving system of a motor vehicle, comprising: a driving power source 1 that generates power; a belt-and-pulley type continuously variable transmission 4 that transmits the power received from the driving power source to a drive wheel while changing a first speed of rotation of an input shaft 411 thereof to a second speed of rotation of an output shaft 421 thereof, and a speed changing mechanism 2/3 comprising at least one planetary gear set, and provided between the driving power source and the continuously variable transmission so as to increase or reduce a speed of rotation of the driving power source during forward running of the vehicle. With regard to claim 2, Morishige teaches the system, wherein the speed changing mechanism has a forward-drive/reverse drive 36/37 switching function of establishing a selected one of a cut-off mode in which power transmission is cut off (Col. 4), a forward drive mode in which the vehicle runs forward, and a reverse drive mode in which the vehicle runs backward.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee. With regard to claim 1, Lee teaches a driving system of a motor vehicle, comprising: a driving power source 2 that generates power; a belt-and-pulley type continuously variable transmission 59 that transmits the power received from the driving power source to a drive wheel while changing a first speed of rotation of an input shaft 56 thereof to a second speed of rotation of an output shaft 62 thereof, and a speed changing mechanism 16/8 comprising at least one planetary gear set, and provided between the driving power source and the continuously variable transmission so as to increase or reduce a speed of rotation of the driving power source during forward running of the vehicle. With regard to claim 2, Lee teaches the system, wherein the speed changing mechanism comprises at least one planetary gear set 8, and has a forward-drive/reverse drive 20/26 switching function of establishing a selected one of a cut-off mode in which power transmission is cut off, a forward drive mode in which the vehicle runs forward, and a reverse drive mode in which the vehicle runs backward.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claims 2 and 1 above, and further in view of Takagi. Lee teaches the system, wherein the speed changing mechanism transmits the power generated by the power source to the continuously variable transmission while increasing a speed of rotation of the power source

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during forward running of the vehicle (Fig. 8). Lee lacks the teaching of said power source being a diesel engine. Takagi teaches a similar transmission arrangement wherein a diesel engine can be used as the driving power source (Col. 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lee in view of Takagi to employ a diesel engine as a power driving source in order to use a cleaner burning driving source.

Allowable Subject Matter

Claims 4 and 6 are allowed.

Response to Arguments

With regard to the Morishige reference, applicant argues that the speed changing mechanism does not comprise a planetary transmission (as currently claimed). According to the present invention (and as claimed in claim 2), the speed changing mechanism does not refer to one specific portion of the drive train. It encompasses both parts 15 and 16. As read upon the claims, the speed change mechanism comprises the torque converter and the planetary transmission, wherein the torque converter performs the function of increasing or decreasing a speed of rotation of the power source. Therefore, the speed changing mechanism does “comprise” of a planetary gear set. Applicant’s arguments have been considered, but are not persuasive.

With regard to the Lee reference, the same could be said, except the speed change mechanism of Lee comprises of the planetary gear set 8 and the CVT 16, all located between the power source and CVT 59. CVT increases and decreases the rotation speed of the power source (Fig. 4 (increasing at the solid position, decreasing at the double slashed position). Applicant's arguments have been considered, but are not persuasive.

With regard to the Takagi reference, and its combination with Lee, Takagi teaches a transmission 9 located between the engine and CVT. In fact, Takagi could also be used as a 102 rejection, as the transmission has been taught to be a planetary transmission (Col. 5, lines 21-29) and said transmission alters the speed ratio of the power source (Col. 5, lines 15-21). The combination of Lee and Takagi do teach the limitations of the present invention (as claimed), since CVT 16 of Lee can be controlled within all ranges (increasing and decreasing speeds) within the forward range, therefore, at some point, it would/could be increasing the rotational speed from the power source during forward running. Applicant's arguments have been considered, but are not persuasive.

Please Note: If applicant wants to overcome the Lee and Morshige references, a more direct claim to the transmission structure is suggested (i.e. the FWD/REV planetary transmission and the double pinion planetary transmission in series). Although Takagi would be the closest reference cited to date, the function of the entire structure during forward running may not be covered.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses

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requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'R. Pang', with a stylized, looping flourish at the end.

Roger L Pang
Primary Examiner
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May 19, 2005